

**WHAT IS CLAIMED IS:**

1. A method for managing annotations comprising:
  - detecting one or more changes to a document having at least one annotation corresponding to at least one portion of the document prior to occurrence of the one or more changes;
  - determining if the at least one annotation should be applied to the document, as changed; and
  - if so, updating an annotation record based on the one or more changes to the document.
2. The method of claim 1, wherein updating the annotation record comprises updating an index indicating an annotated portion of the document.
3. The method of claim 1, wherein updating the annotation record comprises updating one or more indexes to refer to multiple versions of the document.
4. The method of claim 1, wherein updating an annotation record containing the at least one annotation to reflect the one or more changes to the document comprises:
  - copying an existing annotation record referring to the document prior to the one or more changes; and
  - updating the annotation record copied to reflect the one or more changes to the document.
5. The method of claim 1, wherein detecting one or more changes to the document comprises comparing change detection values generated for the at least one annotated portion of the document prior to and after the one or more changes.
6. The method of claim 5, wherein the change detection values are hash values generated for the at least one annotated portion of the document prior to and after the one or more changes.

7. The method of claim 1, further comprising, prior to updating the annotation record:

notifying a user the document has changed; and

receiving validation from the user that the annotation should be applied to the document as changed.

8. A method comprising:

receiving a document to be checked into a content management system, the document having at least one annotation corresponding to an annotated portion thereof, wherein one or more changes to the document have been made subsequent to creation of the annotation;

determining if the annotation should be applied to the document as changed; and

if so, updating an annotation record containing the at least one annotation based on the one or more changes to the document.

9. The method of claim 8, wherein determining if the annotation should be applied to the document as changed comprises determining whether a creator of the annotation specified the annotation should be applied to subsequent versions of the document.

10. The method of claim 9, further comprising:

determining if the user specified that validation should occur prior to updating an annotation record containing the at least one annotation to reflect the one or more changes to the document;

if so, prompting a user for such validation; and

updating the annotation record only after receiving such validation.

11. The method of claim 8, wherein updating an annotation record containing the at least one annotation to reflect the one or more changes to the document comprises:

running an algorithm to identify the annotated portion of the document corresponding to the at least one annotation in the document as changed; and  
if the annotated portion is identified by the algorithm, updating the annotation record based on results of running the algorithm.

12. The method of claim 11, further comprising, if the annotated portion is not identified by the algorithm:

prompting a user to identify the annotation portion in the document, as changed; and  
updating the annotation record based on input received from the user.

13. A computer-readable medium containing a program which, when executed by a processor, performs operations comprising:

detecting one or more changes to a document having at least one annotation corresponding to at least one portion of the document prior to the one or more change;

determining if an annotation corresponding to at least one annotated portion of the document prior to the change should be applied to the document, as changed; and

if so, updating an annotation record containing the at least one annotation to based on the one or more changes to the document.

14. The computer-readable medium of claim 13, wherein updating the annotation record comprises updating an index indicating an annotated portion of the document.

15. The computer-readable medium of claim 13, wherein updating the annotation record comprises updating generating a change detection value for the document, or a portion of the document, to reflect the one or more changes.

16. The computer-readable medium of claim 13, wherein updating an annotation record containing the at least one annotation to reflect the one or more changes to the document comprises:

- copying an annotation record referring to the document prior to the one or more changes; and

- updating the annotation record copied to reflect the one or more changes to the document.

17. A system comprising:

- at least one application;

- a content management system for managing a plurality of documents manipulated by the at least one application;

- an annotation database for holding annotation records, each containing annotation data related to one or more of the plurality of documents; and

- an annotation maintenance component configured to detect changes to a document managed by the content management system, the document having at least one annotation corresponding to an annotated portion thereof, wherein one or more changes to the document have been made subsequent to creation of the annotation, determine if the annotation should be applied to the document as changed, and, if so, update an annotation record containing the at least one annotation based on the one or more changes to the document.

18. The system of claim 17, wherein the annotation maintenance component is configured to update an annotation record containing the at least one annotation to reflect the one or more changes to the document by updating an annotation index stored in the annotation record.

19. The system of claim 17, wherein the annotation maintenance component is configured to update an annotation record containing the at least one annotation to reflect the one or more changes to the document by updating a change detection value stored in the annotation record.

20. The system of claim 17, wherein the annotation maintenance component is integrated with the content management system.